

**ABSTRACT**

A network interface adapter includes a network interface, coupled to send and receive data packets over a network and a host interface, for coupling to a host processor and to a system memory associated therewith. The system memory contains context information with respect to a plurality of transport service instances used to send and receive the data packets over the network, each of the data packets belonging to a respective one of the service instances. Packet processing circuitry, coupled between the network interface and the host interface, processes the data packets using the context information of the respective service instances. A cache memory associated with the packet processing circuitry is coupled to load from the system memory and store the context information of the respective transport service instances for the data packets being processed by the packet processing circuitry.